

ERP: Uniting Manufacturing and Inventory in Lean Times

Cindy Waxer | May 06, 2009

Introduction

It may not be the sexiest use of a hot technology, but helping companies align manufacturing and inventory processes is one of the most critical applications of ERP (Enterprise Resource Planning). In fact, according to Aberdeen Group, ERP systems and their MRP (Material Requirements Planning) predecessors have been around for almost three decades. But never before has there been such a need for ERP, as more businesses respond to the economic downturn by attempting to reduce waste and establishing “lean” manufacturing practices.

“ERP systems have their heritage in manufacturing, so they’re really designed to optimize inventory,” says Paul Hamerman, a research analyst with Forrester Research.

The Perks

So how does it work? By providing real-time data regarding inventory information and the production process, an ERP system delivers numerous benefits including:

- Cost reductions through efficient inventory management
- Detailed reports on business-critical inventory information
- Improved decision-making based on real-time information
- Reduction in stock on hand with fast access to inventory information
- Streamlined production process with established goals
- Elimination of waste in the manufacturing process
- Accelerated production cycles

Yet one of the greatest perks of ERP is in its capacity to help companies in demand-planning. Without the necessary real-time information, many companies are forced to maintain large, costly inventories based on projected future sales or supply-chain contingencies. However, an ERP system can cull information from customer requests, sales figures and inventory level to determine the real need for raw materials and production levels.

“ERP can provide you with better demand-planning tools that help ensure you’re taking a more just-in-time approach to purchasing raw materials and components rather than having to stockpile because you can’t predict your demand,” says Eric Kimberling, president of Panorama Consulting Group in Denver.

Hamerman agrees: “ERP can be a closed-loop system that controls the production capabilities based on demand and capacity.”

A Solid Foundation

In addition to being able to accurately predict future demand, an ERP system can also serve as a foundation for many other business planning activities, such as purchasing, financial planning, managing resources, logistics planning,

even customer satisfaction. Suddenly, manufacturing department heads need no longer depend on Microsoft Excel spreadsheets to determine work flow. Rather, ERP allows them to base their decisions on real-time information, as well as tweak production planning in accordance with economic fluctuations.

Here are just a handful of ERP solutions with a manufacturing component:

- **Epicor Manufacturing:** Epicor lets companies plan, schedule, execute and monitor the entire manufacturing business. From raw materials to final product, the tool provides increased flexibility and agility.
- **Sage Pro:** Designed to automate input measurements and calculate production outputs, Sage Pro delivers the accuracy required to achieve the quick-turn adjustments so critical to staying ahead of the competition and to growing profit margins. The solution can synchronize manufacturing with purchasing, sales and receivables, and accounting.
- **SAP Manufacturing:** This solution helps coordinate operations with partners and suppliers to improve production performance across the manufacturing network. The solution also delivers real-time visibility into plant and enterprise operations to detect and resolve exceptions and performance-deviation in real time.

Recommended Reading

- [ERP: The Good, the Bad and the Ugly](#)
- [A License to Drive ERP Adoption](#)
- [Putting to Rest ERP Integration Nightmares](#)